

REMARKS

In response to the office action dated February 7, 2008, Applicants have amended claim 1 to remove non-elected subject matter and withdrawn claims 8 and 12, which are directed to non-elected subject matter. The amendments to claim 1 necessitate cancellation of claims 2-4 and amendments to claims 8 and 12. Applicants reserve the rights to rejoin the non-elected method claims 8 and 12 upon allowance of compound claim 1. Finally, Applicants have amended claims 1, 7, and 9 to more particularly point out and distinctly claim the subject matter which they regard as their invention. Claims 1, 5-7, and 9 are presented for examination.

Rejections under 35 U.S.C. §112, 1st paragraph and 2nd paragraph

Claims 1 and 9 are rejected as failing to comply with the written description requirement and as being indefinite. Specifically, the Examiner asserts that “[t]he ‘solvate’ of the compound of Claims 1 and 9 are not defined in the specification so as to know the structures of the compounds that are included and/or excluded by the term. Therefore, the specification lacks adequate support for Claims 1 and 9. ... the ‘solvate’ of the compounds of Claims 1 and 9 are not defined in the claims so as to know the metes and bounds of the claims. Therefore, the claim is indefinite.” See the office action, page 7, lines 1-5 and 10-15. Applicants do not agree with the Examiner's assertions. However, to expedite prosecution of this application, Applicants have removed the phrase “or a solvate thereof” from claims 1 and 9.

Applicants submit that claims 1 and 9, as amended, are not indefinite and are adequately described by the specification. Accordingly, Applicants request reconsideration and withdrawal of these two rejections.

Double patenting rejection

Claims 1-7 and 9 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 and 9 of copending Application No. 10/528,477 (“the ‘477 application”).

Claims 1, 5-7, and 9 are currently pending and cover compounds of formula (I), which include a 3-piperidinyl group connecting to a 4-piperidinyl group via a methylene group.

The Examiner asserts that

“The instant claims are positional isomers of the copending [application] because they have the same radical on a different position, i.e., the instant claims are drawn to 3-piperidinyl compounds, while the copending application is drawn to 4-piperidinyl compounds.

One of ordinary skill in the art would be motivated to optimize known compounds with the expectation that structurally similar compounds, i.e., isomers, would have similar properties, i.e., in treating chemokine mediated diseases. Optimization is routine practice in the pharmaceutical arts and is not patentably distinct.” *See* the office action, page 5, line 16 to page 6, line 6.

Applicants respectfully disagree. The compounds of claims 1-7 and 9 of the ‘477 application contains two 4-piperidinyl groups connected to each other via a methylene groups and are significantly different from those of claims 1, 5-7, and 9 of the present application. To arrive at the compounds of claims 1, 5-7, and 9 of the present application, one skilled in the art would not only need to select the piperidinyl group on the right from the two piperidinyl groups, but also need to move the nitrogen atom from the 4-position to the 3-position (but not to the 1- or 2 position). There is nothing in the ‘477 application to motivate one skilled in the art to make this change.

Further, the shift in position of the nitrogen atom in one of the two piperidinyl groups in the compounds of claims 1, 5-7, and 9 of the present application fundamentally alters the orientation of the substituents and therefore alters the shape of the molecules. Such an alteration would lead to significant changes in biological activity of the claimed compounds because their biological activity is highly dependent on their capability of being able to “fit” to specific chemokine receptors. As a result, such a change would not be considered as a simple “optimization” of a biological compound. A skilled chemist seeking to optimize a compound covered by claims 1-7 and 9 of the ‘477 application may consider trying different salts of that compound. However, he or she, in view of the ‘477 application, would not have made a fundamental structural change to the compound, which would make the compound take a different shape. Indeed, nowhere in the ‘477 application suggests making such a change.

In sum, it would not have been obvious to one skilled in the art to shift one nitrogen atom in one of the two piperidinyl groups of the compounds of claims 1-7 and 9 of the ‘477 application from 4-position to 3-position to provide the compounds of claims 1, 5-7, and 9 of the

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present application and expect that the modified compounds would still have similar biological activity.

CONCLUSION

Applicants submit that the grounds for rejection asserted by the Examiner have been overcome, and that claims 1, 5-7, and 9 as pending, are now in condition for allowance, an action of which is requested.

Please apply any other charges to deposit account 06-1050, referencing Attorney's Docket No. 06275-416US1.

Respectfully submitted,

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